

USER'S MANUAL

AOD 150 metal case monitor



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All In One

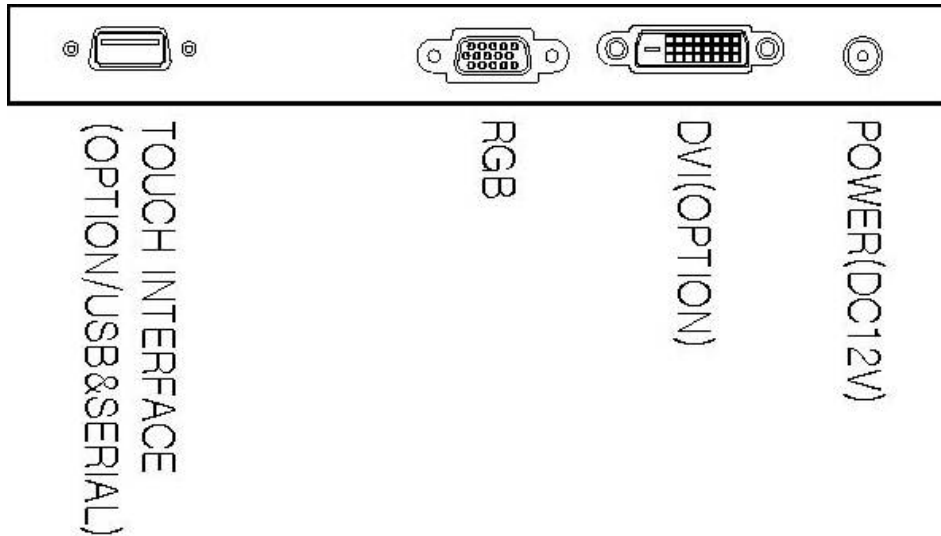
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All In One

1.0. Connection To the Monitor



1.1. Installation

- Connect the signal(VGA) cable to the VGA port of computer. Tighten the two thumbscrews by turning clockwise.
- You can adjust the connection for your PC environment.
- Plug the DC cord of the AC adapter to the power connector and the plug the end of AC adapter to an electrical outlet socket(110V/220V)
- Connect DC cord of adapter (12V DC) to the monitor..

1.2. Features

- AOD170 is 17" SXGA LCD monitor and support up to 75Hz.
- You can adjust brightness, contrast, horizontal & vertical positions by OSD menus and use auto adjust function for instant adjustment.
- High-qualified LCD Controller inside
- Compact space saving design and power saving mode
- 100% compatible with Windows PC environment without the installation of driver CD or software program.



1.3. Plug and Play Function

AOD170 can be installed and connected automatically to any computer systems without driver CD or software programs. Monitor will recognize the optimized value of video mode by DDC(Display Data Channel) method that makes the graphic card of computer to communicate with the monitor.

AOD170 supports VESA DDC 1/2B.

1.4. Safety Precaution

We strongly recommend that you carefully read this User's Manual before operating your LCD monitor. FOLLOW INSTRUCTIONS in this manual. Please read and comprehend all using directives before use this machine.

● Power

— Use the type of power indicated on the marking label.

● Adapter

— Only use an adapter designed of the LCD monitor.

● Plug

— Do not remove any of the prongs of the monitor's three-pronged power plug.

— Disconnect the power plug from the AC outlet if you will not use it for an indefinite period of time.

● Power and extension cord

— Use the proper power cord with ground conductor

— Do not overload wall outlets or power cords. Ensure that the total of all units plugged into the wall outlet does not exceed 7 amperes.

— Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.

● Care and maintenance

— Slots and openings in the cabinet are provided for ventilation. Do not block or cover these openings.

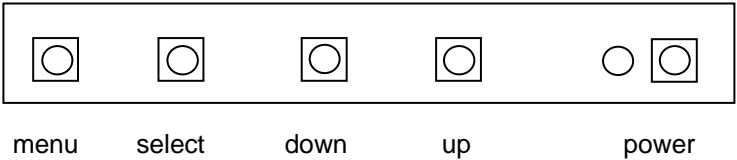
— Do not push objects of any kind into cabinet slots or openings. The screen surface is easily scratched.

— Do not use paper towels to clean the display. Avoid touching it with your fingers, pens, or pencils.

— Turn off the AC adapter and the monitor over long periods when not in use.






1.5. OSD (On-Screen-Menu)



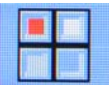

Button	Function	Status
POWER	Power ON or OFF	ON/OFF
LED	Indicate working status	Green : On Red : Stand-by Orange : No signal
UP	Launch OSD Menu or Add Value	Move to OSD Menu
DOWN	Launch OSD Menu or Down value	Move to OSD Menu
SELECT	Select OSD Menu	
MENU	On / Off OSD Menu	



1.6. OSD Menu

OSD Menu			Description	Remarks
 Picture	Brightness		Adjust the brightness of the screen	
	Contrast		Adjust the contrast of the screen	
	H.Position		Adjust the horizontal position of the screen's image	Only usable on Analog Mode
	V.Position		Adjust the vertical position of the screen's image	
	Phase		Adjust the focus of the screen's image	
	Clock		Adjust the horizontal size of the screen's image	
	Auto Adjust		Automatically adjust the Horizontal position, Vertical position, Horizontal size, and Phase Window's background or characters should be displayed on your Full screen prior to proceed this function	
	Color Temp	User Reddish Bluish	Control the temperature of the color	
 Color	Red		Control the intensity of the color of the screen's image (Usable when Color temperature is USER mode.)	Only usable on Analog Mode
	Green			
	Blue			
	Auto Color		Adjust the color balance of the screen	



	Language	English French German Spanish Italian Korean Japanese	Select one of the seven language	Usable on all Mode.
	OSD H.Posi.		Select OSD MENU horizontal position	
	OSD V.Posi.		Select OSD MENU vertical position	
	OSD Timer		OSD MENU disappear from over the screen after setting time	
	Transparency		Adjust the transparency of the OSD menu	
	Language	English German French Spanish Korean	Select one of the seven language	
	Recall	Initialize the current mode & setting value		
	Input Select	Analog	Analog signal(RGB)	
		Digital	DVI digital signal	
	Audio	Audio ON/OFF select		
Volume	Adjust volume level			



1.7. Specifications

AOD150 VGA, 15 inch metal case monitor

Black powdered cover.

Model:	15 inch XGA TFT LCD Monitor
Type:	15" Color Active Matrix TFT LCD
Resolution (max):	1024 x 768 (XGA)
Color:	16,2 miljoen
Pixel:	0.297 x 0.1297 mm
Brightness:	250 cd/m2
Contrast ratio:	400:1
Viewing angle:	65°/65° & 45°/55°
Response time	16 ms
Active area:	304,1 (H) x 228,1 (V) mm
VGA input	Analog RGB (D-Sub 15-pins)
Plug and play:	Yes DDC1 /DDC2B
Power:	12 Volts. included Adapter
Power consumption:	<35 watt max.
Power consumption stand by:	<4 watt max.
Temperature operation mode:	0 °C - 50 °C
Humidity operation mode:	10% ~ 90% R.H.
Size	350x274x38mm (wxhxd)
Weight	3,3 Kg
Mounting:	VESA 75mm
Users Mode:	OSD Key: Menu / Select / Power / Down / Up
Compatibility:	VESA / IBM / MAC



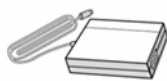
1.8. Contents Of the Retail Package



Monitor



User's Manual



AC/DC Adaptor



Power Cord



VGA Cable



Audio Cable
(Option)



Touch Driver (Option)



Composite
Cable (Option)



S-video Cable
(Option)



1.9. Troubleshooting

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER.

NO USER-SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The monitor does not respond after you turn on the system.

Make sure that the monitor is turned on.

Turn off the power and check the monitor's power cord, AC adaptor, and signal cable for proper connection.

Appear the "No Input the Signal"

Check the connecting of the audio cable between the monitor and the computer.

Appear the "Input Not the Supported"

Input signal are insuperable, reset the video mode.

The appearance is not at the screen center.

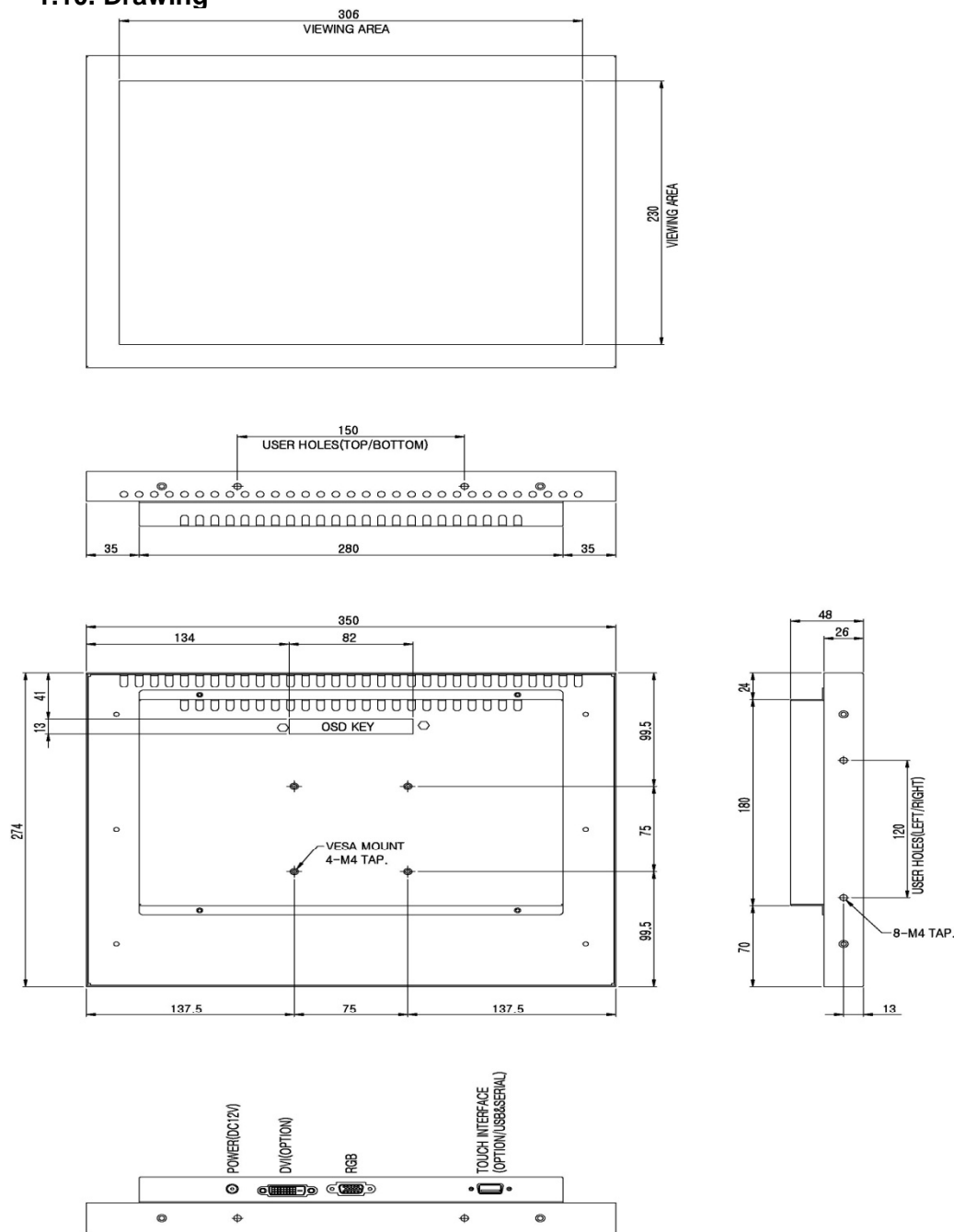
Use "AUTO ADJUST", refer to the Controls section.

The characters on the screen are too dim or too bright

Choose fit color temperature, use "AUTO COLOUR ADJUST or manually adjust "RGB ADJUSTMENT", refer to the Control section.



1.10. Drawing



2 Touch Options

2.1 Touch-options related to monitor size

	4Wire	5wire	SAW			CAP		IR	Optical Touch
			3mm	6mm	protected	3mm	6mm		
064	O	X	X	X	X	X	X	X	X
070w	O	S	S	X	X	X	X	X	X
104	O	O	O	O	X	O	O	S	X
121	O	O	O	O	X	O	O	S	X
150	O	O	O	O	O	O	O	O	X
170	O	O	O	O	O	O	O	O	X
190	O	O	O	O	X	O	O	S	X
220W	X	X	X	X	X	X	X	X	O
230	X	X	X	O	X	X	X	X	X
320	X	X	X	O	X	X	X	O	O
420	X	X	X	O	X	X	X	O	O

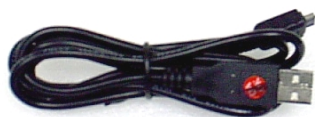
O	Aviable
X	not aviable
S	On demand



2.2 Option: 4-Wire-touchscreen

4 wire-touchscreen sensor	non glare is standard, glare is option
Chemical resistance	Acetone, ammonia-based glass cleaners, hexane, isopropyl alcohol, methylene chloride, mineral spirits, turpentine, methyl ethyl ketone
Contact bounce	less than 10ms
Activation force	less than 40gr
Input modus	Finger, glove hand, pen or stylus
Surface hardness	Meets pencil hardness 3H (per ASTM D3363)
Position accuracy (linearity)	less than 1,5mm
Resolution	4096x4096 Based on controller resolution
Operating life 1	>3.000.000 (250gr, 2 activations/sec)
Operating life 2	>200.000 (250gr, 4.5mm/sec)
Light transmission	75~85% non glare (standard) and 90% glare (option) (per ASTM D1003)
4 wire-controller	USB is standard, RS232 with PS/2 of RS232 internal powered is option
Power requirement	+5V DC ($\pm 10\%$)
Power consumption	Operating 80mA ~ Max.current 140mA
Interface standard option option	USB 'plug-and-play' compatible is standard RS232 with PS/2 connector is option RS232 internal powered controller. is option
Electrostatic protection	prEN 61000-4-2, 1995: Meets level 4 (15kV lucht / 8kV contact discharges)
Touch resolution	4096x4096
Conversion time	~10 ms per coordinate set
Support operating system	Microsoft Windows: 95/98/ME/NT4.0/2000/XP/Vista Mac OS 9.X, 10.X, Mac Intel Linux: Red Hat 9.0, Mandrake 10.0, SuSE 9.2, Fedora Corel &II &III, Yellow Dog 3.x, Kernel 2.4.X, Kernel 2.6.X: 32 en 64 bits

Interface



USB (standard)



RS232 with PS/2



2.3 Option: 5-Wire-touchscreen

5 wire-touchscreen	non glare is standard, glare is option
Chemical resistance	Acetone, ammonia-based glass cleaners, hexane, isopropyl alcohol, methylene chloride, mineral spirits, turpentine, methyl ethyl ketone
Vibration	Withstand 0.01 inches amplitude, at a frequency of 5 to 455 Hz, for a period of 15 minutes in each of the three axes
Contact bounce	less than 10ms
Electrostatic discharge protection	withstands 20 discharges of 15kV (pr EN 61000-4-2, 1995)
Activation force	less than 40gr
Input modus	Finger, glove hand, pen or stylus
Surface hardness	Meets pencil hardness 3H (per ASTM D3363)
Resolution	4096x4096 Based on controller resolution
Position accuracy (linearity)	less than 1%
Operating life 1	>3.000.000 (250gr, 2 activations/sec)
Operating life 2	>200.000 (250gr, 4.5mm/sec)
Light transmission	75~85% non glare (standard) en 90% glare (option) (per ASTM D1003)
5 wire-controller	USB is standard, RS232 with PS/2 of RS232 internal powered is option
Power requirement	+5V DC ($\pm 10\%$)
Power consumption	Operating 80mA ~ Max.current 140mA
Interface standard option option	USB 'plug-and-play' compatible is standard RS232 with PS/2 connector is option RS232 internal powered controller. is option
Electrostatic protection	prEN 61000-4-2, 1995: Meets level 4 (15kV lucht / 8kV contact discharges)
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2.4 Option: SAW-touchscreen

<u>SAW-touchscreen</u> standard	3mm glass with beveled edge
tempered option	Break resistance, meets UL-1950, by 6mm heat tempered glass (is option)
protected option	break resistance,dustproof, waterproof (is option)
Chemical resistance	Acetone, ammonia-based glass cleaners isopropyl alcohol, turpentine, methyl alcohol, methyl ethyl ketone, toluene, gasoline, kerosine, vinegar
Electrostatic discharge protection	pr EN 61000-4-2, 1995: meets level 4 (15 kV air /8kV contact discharges)
Activation force	less then 85gr
Position accuracy	Standard deviation of error is less then $\pm 1\%$
Life performance	>50.000.000 (finger)
Input modus	Finger or glove hand (rubber, cloth, leather)
Surface durability	Optical glass surface, Mohs' hardness rating : 7
Light transmission	90% (per ASTM D1003)
<u>SAW-controller</u>	
Supply voltage	+5V DC($\pm 5\%$)
Supply current	Min 85mA ~ Max 150mA
Electrostatic protection	prEN 61000-4-2, 1995: Meets level 4 (15kV lucht / 8kV contact discharges)
Interface standard	USB 'plug-and-play' compatible
option	RS232 with PS/2 connector, is option
option	RS232 internal powered. is option
Touch resolution	4096x4096
Conversion time	~15ms per coordinate set
Reliability	MTBF greater than 300.000 hours
Support operating system	Microsoft Windows: 95/98/ME/NT4.0/2000/XP/Vista Mac OS 9.X, 10.X, Mac Intel Linux: Red Hat 9.0, Mandrake 10.0, SuSE 9.2, Fedora CoreI &II &III, Yellow Dog 3.x, Kernel 2.4.X, Kernel 2.6.X: 32 en 64 bits

2.5 Option: CAP-touchscreen

<u>CAP-touchscreen</u> standard	3mm glass, glare is standard, non glare is option
tempered version (option)	Break resistance, meets UL-1950, by 6mm heat tempered glass (is option)
Chemical resistance	Water, ammonia, isopropyl-alcohol, and similar non-abrasive cleaners <u>do not use chemical solvent,acidic or alkali solutions</u>
Input method	Finger
Active force	<10 gr
Response time	Max. 200ms
Ball impact	13,0Ø steel bal 9 gr height=30 cm
Surface hardness	Surface hardcoat cannot be scratched using any stylus with Mohs rating ≤ 6
Linearity	$\pm 1,5\%$
Surface durability	>160.000.000 touches without noticeable degradation
Light transmission	$\geq 85\%$ (accordance with ASTM D1003)
Supply voltage	5V DC
Supply current	Min 85mA ~ Max 150mA
Interface standard	USB 'plug-and-play' compatible
option	RS232 with PS/2 connector is option
option	RS232 internal powered controller. is option
Touch resolution	based on controller resolutionb 4096x4096
Support operating system	Microsoft Windows: 95/98/ME/NT4.0/2000/XP/Vista Macintosh OS9, OSX Linux: Red Hat 9.0, Mandrake 10.0, SuSE 9.2, Fedora CoreI &II &III, Yellow Dog 3.x, Kernel2.4.2+, With GUI, Xfree86 4.3+, Kernel 2,3 and above, Command Line Only, Xfree86 3.3 and 4.2

2.6 Option: IR touchscreen

<u>IR-touchscreen</u>	
Chemical resistance	Acetone, ammonia-based glass cleaners, isopropyl alcohol, turpentine, methyl alcohol, methyl ethyl ketone, toluene, gasoline, kerosine, vinegar
Touch activation force	no minimum touch activation is required
Input modus	everything bigger than 6,5 (W) x 6,5 (H)
Life performance	∞
Supply voltage	+5V DC($\pm 5\%$)
Supply current	~ 150mA
Interface standard	RS232 baud rate: 9600, 8 data bits, 1 stop bit, no parity, full duplex
Electrostatic discharge protection	prEN 61000-4-2, 1995: meets Level 4 (15kV air / 8kV contact discharges)
Touchpoint density	Based on controller resolution, up to 4096x4096
Light transmission	Over 90% (per ASTM1003)
Conversion time	less than20 ms
Support operating system	Microsoft Windows: NT4.0/XP/2000/ME/98/95 Linux: Red Hat 9.0, Mandrake 9.1

3 Software

3.1 Touchkit

Features for **Touchkit** software

Features	
Calibration	Fast full oriental 4 points position
Compensation	Accuracy 25 points linearity compensation.
Draw Test	Position and linearity verification
Extend Feature	1. Support monitor / display rotation 2. Support multiple monitor / display 3. Support QVGA and Half-VGA function 4. Support edge compensation
Controller Setting	1. Support multiple controllers 2. Dynamical add / remove controllers 3. Change Controller interface without reboot.
Language	Support 10 languages for Windows
Mouse Emulator	1. Right / Left button emulation 2. Normal / Click on touch / Click on release mode 3. Auto right button
Sound Notification	1. Sound Option (No Sound / Touch Down / Lift Up) 2. Frequency adjustment 3. Duration adjustment
Double Click	1. Configurable double click speed 2. Configurable double click area
OS support	1. Windows 95 / 98 / ME / NT4 / 2000 / XP / Vista Windows XP Tablet PC Edition 2. Windows CE 2.12, 3.0, 5.0, 6.0 .NET 3. Linux (X Window Version: 3, 4 Red Hat 6.0 ~ 9.0 Mandrake 5.0 ~ 9.1 , Kernel 2.4.X Kernel 2.6.X, 32 en 64 bits) 4. iMac. OSX, OS9.X, OS10.X, Intel 5. MS-DOS: Support display resolution: 320x200, 640x200, 640x350, 640x480, 800x600, 1024x768 and 1280x1024
COM port support	1. Support COM 1 ~ COM 256 for Windows and Linux 2. Support COM 1 ~ COM 8 for DOS

3.2 ELO

By adding a jumper to the A-Touch controller, the whole system becomes ELO-compatible.

The touch registration will be realised by ELO-drivers.

There are several reasons for doing this:

- You are already using application software with “build-in” ELO-drivers.
- You are using clients with pre-installed ELO-drivers.
- You replace an original ELO-touchscreen with an A1-touchscreen.

Then benefit is; you don't have to install new software in the above mentioned situation.

Remark:

If you want to change your driver software from touchkit to ELO, or the other way around, you have to de-install the old software completely before installing the new software.

4 Mounting

- 4.1 Plain
- 4.2 Brackets
- 4.3 Panel mounting
- 4.4 Wall mounting
- 4.5 Wall mounting with extended cover
- 4.6 Domo-O
- 4.7 Domo-S
- 4.8 Domo-L
- 4.9 19-inch-rack

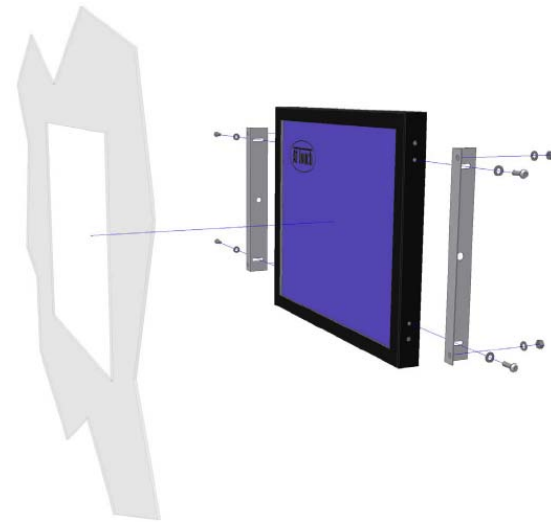
4.1 Plain



Metal case monitor

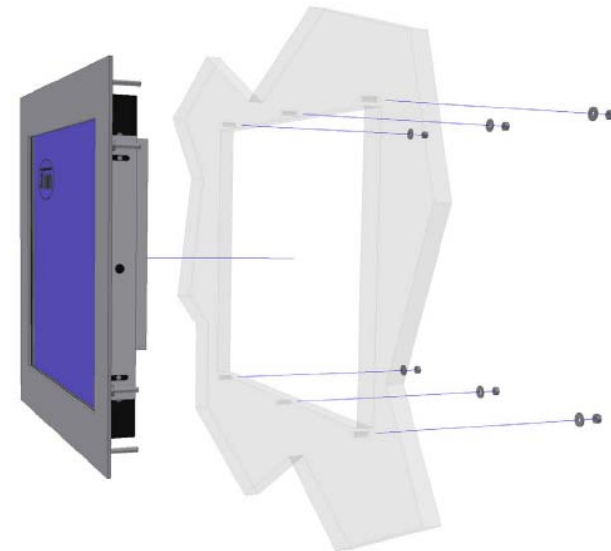


4.2 Brackets



Metal case monitor + 2x brackets

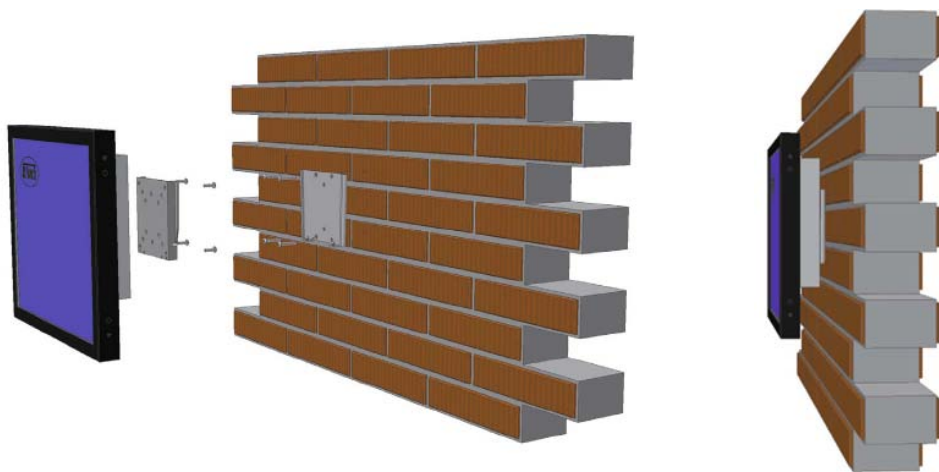
4.3 Panel-mounting



Metal case monitor + base + 2x brackets

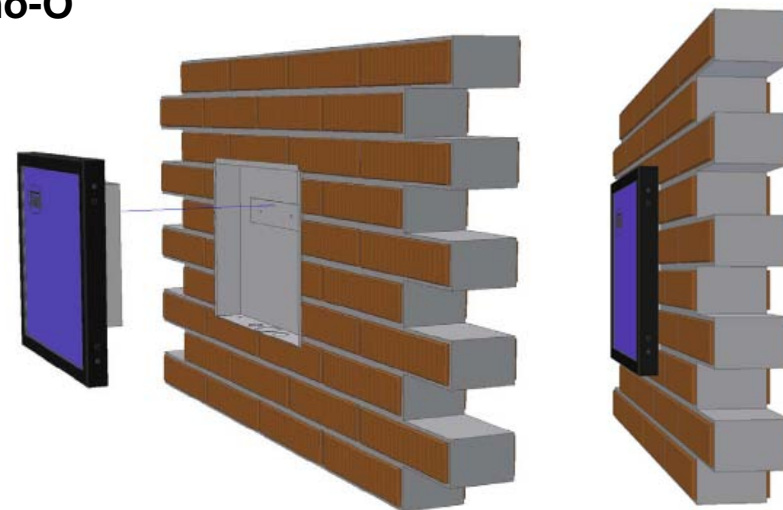


4.4 Wall mounting



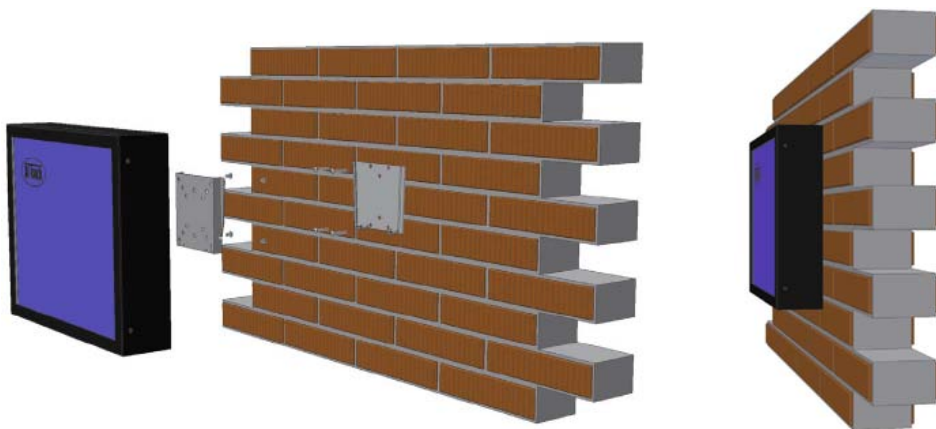
Metal case monitor + New Star TV Wallmount (FPMA-W25)

4.6 Domo-O



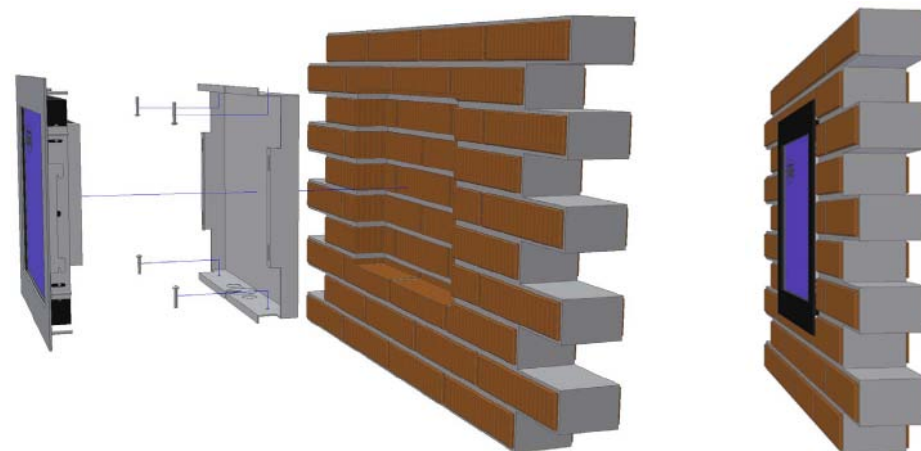
Metal case monitor + Domo-O metal case

4.5 Wall mounting with extended cover



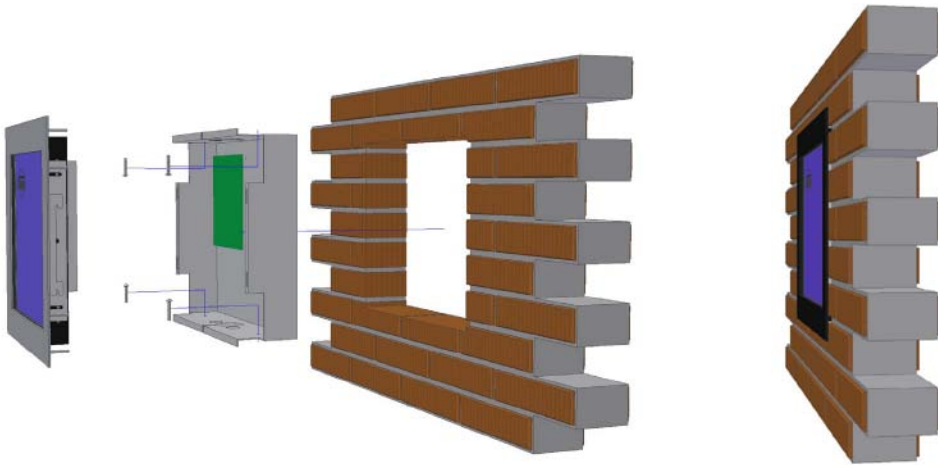
Metal case monitor with extended cover +New Star TV Wallmount (FPMA-W25)

4.7 Domo-S



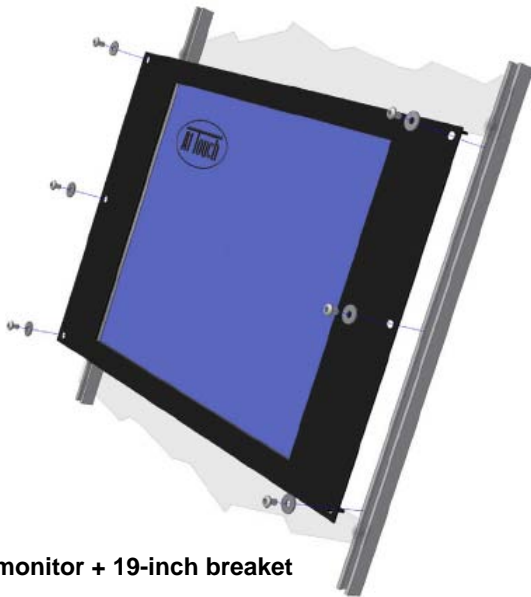
Metal case monitor + 2xbreakets + basi + Domo-S metal case

4.8 Domo-L



Metal case monitor + 2x breakets + basel + Domo-L metal case

4.9 19-inch-rack



Metal case monitor + 19-inch breaket